UNITED STATES PATENT AND TRADEMARK OFFICE

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10/544,288	04/27/2006	Christian Bruelle-Drews	11336/1061 (P02089US)	9938

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *03 August 2005*.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-5,7-11,13-27 and 29-35* is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1-5, 7-11, 13-27 and 29-35* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on *03 August 2005* is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☒ All   b) ☐ Some * c) ☐ None of:
      1. ☒ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____.
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date *8/3/2005*.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____ .

DETAILED ACTION

1.   Claims 1-5, 7-11, 13-27, and 29-35 are pending.

Specification

2.   The disclosure is objected to because of the following informalities: paragraphs

[0001] through [0004] appear to be from a different application and should be replaced.

Appropriate correction is required.

Claim Objections

3.   Claim 25 is objected to because of the following informalities: --, on a computer

readable medium,-- should be added after "includes" on line 5. Appropriate correction is

required.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5.   **Claims 1-5, 7, 9-11, 14-22, 25-27, and 31-35** are rejected under 35

U.S.C. 102(b) as being anticipated by Inoue et al (US Patent No. 6,295,503).

Inoue et al teaches:

Re claim 1. A vehicle navigation system comprising:

a processor (vehicle mounted navigation system 20, Figure 1) operable to store

an HOV restriction value for a section of road (column 6, lines 41-50) and operable to

receive information regarding a number of occupants in the vehicle (passenger number

sensor 27, Figure 1);

where the processor is configured to compare the number of occupants in the

vehicle to the HOV restriction value of the section of road (column 6, lines 28-34); and

where the processor determines a route as a function of the comparison of the

number of occupants in the vehicle to the HOV restriction value of the section of road

(column 6, lines 28-34).

Re claim 2. Further comprising a seat occupancy sensor operable to generate a signal

indicating whether a seat is occupied (column 3, lines 60-67).

Re claim 3. Where the seat occupancy sensor provides the signal to the processor

(passenger number sensor 27 to ECU 36, Figure 1).

Re claim 4. Where a user provides information to the processor regarding the number

of occupants in the vehicle (column 10, lines 58-65).

Re claim 5. Where the HOV restriction value for a section of road is provided via

wireless connection (column 5, lines 43-63; the information sensor transmits traffic

regulations to the vehicle mounted navigation system wirelessly).

Re claim 7. Further including a display coupled to the processor, where the processor

generates a map indicating the existence of an HOV restriction value for a section of

road and displays the map on the display (column 4, lines 1-6; column 6, lines 41-50;

the display displays map data inputted from the map data input unit 24, which includes

carpool lane data).

Re claim 9. Further including a speaker coupled to the processor, where the processor

generates a sound played via the speaker indicating a route recommendation based on

the comparison (column 4, lines 7-8).

Re claim 10. A navigation system for a vehicle comprising:

a seat occupancy sensor coupled to a seat in the vehicle and operable to

generate an occupancy signal indicating whether the seat is occupied (column 3, lines

60-67);

a processor (vehicle mounted navigation system 20, Figure 1) coupled to the

seat occupancy sensor and operable to store a high occupancy vehicle restriction value

for a section of road (column 6, lines 41-50); and

a display coupled to the processor, where the processor generates a map

indicating the high occupancy vehicle restriction value for the section of road and

displays the map on the display (column 4, lines 1-6; column 6, lines 41-50; the display

displays map data inputted from the map data input unit 24, which includes carpool lane

data);

where the processor is configured to receive the occupancy signal, determine a number of occupants in the vehicle based on the occupancy signals, and compare the number of occupants in the vehicle to the high occupancy vehicle restriction value for the section of road (column 6, lines 28-34).

Re claim 11. Where the processor determines a route to a destination as a function of the number of occupants in the vehicle and the high occupancy vehicle restriction value for the road (column 6, lines 28-34).

Re claim 14. Further including a speaker coupled to the processor, where the processor generates a sound played via the speaker indicating a route recommendation based on the comparison of the number of occupants to the high occupancy vehicle restriction value (column 4, lines 7-8).

Re claim 15. A method for navigating a vehicle, the method comprising:

retrieving a high occupancy vehicle restriction value for a section of road (column 6, lines 41-50);

receiving an occupancy signal from a seat occupancy sensor indicating whether a seat in the vehicle is occupied (passenger number sensor 27 to ECU 36, Figure 1);

determining a number of occupants in the vehicle based on the occupancy signal (column 3, lines 60-67); and

determining whether the vehicle is authorized to traverse the section of

road based on a comparison of the high occupancy vehicle restriction value to

the number of occupants (column 6, lines 28-34).

Re claim 16. Further comprising the step of storing the high occupancy vehicle

restriction value (column 6, lines 41-50).

Re claim 17. Further comprising storing a digital map that includes the high occupancy

vehicle restriction value (column 3, lines 45-52; and column 6, lines 41-50).

Re claim 18. Where determining whether the vehicle is authorized includes

determining whether the number of occupants is at least equal to the high occupancy

vehicle restriction value (column 6, lines 28-34).

Re claim 19. Further comprising determining a route to a destination based on the

comparison (column 6, lines 28-34).

Re claim 20. Further comprising determining a route that includes the section of road

where the vehicle is authorized to traverse the section of road (column 6, lines 35-37).

Re claim 21. Further comprising determining a route that excludes the section of road

where the vehicle is not authorized to traverse the section of road (column 7, lines 62-

67).

Re claim 22. Further comprising generating a map indicating the existence of the high

occupancy vehicle restriction value for the section of road, and displaying the map on a

display (column 4, lines 1-6; column 6, lines 41-50; the display displays map data

inputted from the map data input unit 24, which includes carpool lane data).

Re claim 25. A navigation system for a vehicle comprising:

    a seat occupancy sensor (passenger number sensor 27, Figure 1);

    a processor coupled to the seat occupancy sensor (ECU 36, Figure 1);

    a display coupled to the processor (display 28, Figure 1);

    where the processor includes a program of instructions comprising:

        instructions to retrieve a high occupancy vehicle restriction value for a

section of road (column 6, lines 41-50);

        instructions to receive an occupancy signal from the seat occupancy

sensor (passenger number sensor 27 to ECU 36, Figure 1);

        instructions to determine a number of occupants in the vehicle based on

the occupancy signal (column 3, lines 60-67);

        instructions to compare the high occupancy vehicle restriction value to the

number of occupants (column 6, lines 28-34);

instructions to determine whether the vehicle is authorized to traverse the

section of road based on the comparison (column 6, lines 28-34); and

instructions to generate a map indicating the high occupancy vehicle

restriction value for the section of road and to display the map on the display (column 4,

lines 1-6; column 6, lines 41-50; the display displays map data inputted from the map

data input unit 24, which includes carpool lane data).

Re claim 26. Where the processor includes a digital map that includes the existence of

the high occupancy vehicle restriction value for the section of road (column 3, lines 45-

52; and column 6, lines 41-50).

Re claim 27. Where the program of instructions further comprises instructions to

determine a route based on whether the vehicle is authorized to traverse the section of

road (column 6, lines 35-37).

Re claim 31. A vehicle navigation system comprising:

a means for storing an HOV restriction value for a section of road (column 6,

lines 41-50);

a means for receiving information regarding a number of occupants in the

vehicle (passenger number sensor 27, Figure 1); and

a means for comparing the number of occupants in the vehicle to the HOV

restriction value of the section of road (column 6, lines 28-34).

Re claim 32. Further comprising a means for generating a signal indicating whether a seat is occupied (column 3, lines 60-67).

Re claim 33. Further comprising a means for providing information indicating whether the seat is occupied to the processor (passenger number sensor 27 to ECU 36, Figure 1).

Re claim 34. Where the means for comparing further determines a route as a function of the comparison of the number of occupants in the vehicle to the HOV restriction value of the section of road (column 6, lines 28-37).

Re claim 35. Further including a means for providing information to an occupant of the vehicle regarding the route (display 28 and speaker 30, Figure 1).

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7.   **Claims 8, 23, and 29** are rejected under 35 U.S.C. 103(a) as being unpatentable

over Inoue et al (US Patent No. 6,295,503) in view of Yamazaki (US Patent No.

2001/0021895).

The teachings of Inoue et al have been discussed above. Inoue et al additionally

teaches:

Re claims 8, 23, and 29. Further including a speaker coupled to the processor

(speaker 30, Figure 1).

Inoue et al fails to specifically teach: **(re claims 8, 23, and 29)** where the

processor generates a sound indicating the existence of an HOV restriction value for a

section of road and plays the sound via the speaker.

Yamazaki teaches, in the abstract and at paragraph 54, using the carpool lane

guide section to output a vocal notification that the driver is to enter/exit a carpool lane,

thus indicating the existence of a carpool lane.

In view of Yamazaki's teachings, it would have been obvious to one of ordinary

skill in the art at the time of the invention to include, with the navigation system as

taught by Inoue et al, **(re claims 8, 23, and 29)** where the processor generates a sound

indicating the existence of an HOV restriction value for a section of road and plays the

sound via the speaker; since Yamazaki teaches verbally alerting a driver that they

should be entering an HOV lane so that the driver can quickly and effectively reach their

destination.

8.   **Claims 13, 24, and 30** are rejected under 35 U.S.C. 103(a) as being

unpatentable over Inoue et al (US Patent No. 6,295,503) in view of *Traffic sign enabled*

global positioning system (GPS) based navigation system for vehicles.

The teachings of Inoue et al have been discussed above. Inoue et al additionally

teaches:

Re claims 13 and 30. Further including a speaker coupled to the processor (speaker

30, Figure 1).

Inoue et al fails to specifically teach: **(re claim 13)** where the processor

generates a sound indicating the high occupancy vehicle restriction value for the section

of road, and plays the sound via the speaker; **(re claims 24 and 30)** further comprising

generating a sound, indicating the vehicle is not authorized to traverse the section of

road based on the comparison, and playing the sound via a speaker;.

Traffic sign enabled global positioning system (GPS) based navigation

system for vehicles teaches enabling a navigation system to warn a user when they are

about to violate a traffic law, and informing a user of posted traffic laws such as speed

limits (first sentence of last paragraph).

In view of *Traffic sign enabled global positioning system (GPS) based navigation*

system for vehicles' teachings, it would have been obvious to one of ordinary skill in the

art at the time of the invention to include, with the navigation system as taught by Inoue

et al, **(re claim 13)** where the processor generates a sound indicating the high

occupancy vehicle restriction value for the section of road, and plays the sound via the

speaker; **(re claims 24 and 30)** further comprising generating a sound, indicating the

vehicle is not authorized to traverse the section of road based on the comparison, and

playing the sound via a speaker; since *Traffic sign enabled global positioning system*

(GPS) based navigation system for vehicles teaches informing a user of posted traffic

laws and warning a user when they are about to violate a traffic law, which will prevent

the user from incurring tickets, and Inoue et al already determines HOV requirements

and which roads a driver may use and suggests using audio prompts so that a user will

not have to look at the display at column 4, lines 13-16.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to SPENCER PATTON whose telephone number is

(571)270-5771. The examiner can normally be reached on Monday-Thursday 7:30-

5:00; Alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Khoi Tran can be reached on (571)272-6919. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SPENCER PATTON/
Examiner, Art Unit 3664

4/25/2009
/KHOI TRAN/
Supervisory Patent Examiner, Art Unit 3664